

AGENDA ITEM V A 1

PROGRESS REPORT ON CONDITIONALLY APPROVED PROGRAM

NICHOLLS STATE UNIVERSITY

MASTER OF SCIENCE IN MARINE AND ENVIRONMENTAL BIOLOGY

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NICHOLLS STATE UNIVERSITY

MASTER OF SCIENCE IN MARINE AND ENVIRONMENTAL BIOLOGY

BACKGROUND INFORMATION

At its meeting in February, 2002, the Board of Regents acted as follows:

Conditional approval is granted for the proposed M.S. in Marine and Environmental Biology (CIP Code 26.0607) at Nicholls State University, effective in the fall semester of 2002. By August 1, 2003, the University shall submit to the Commissioner of Higher Education a report updating progress toward resolving weaknesses and problematic areas which external consultants identified. In addition, this report shall provide substantive evidence that resources of the Louisiana Universities Marine Consortium are being fully utilized to effect maximum program development and growth.

Subsequently, in October of 2003:

The Board of Regents receives the AY 2002-2003 Progress Report from Nicholls State University Relative to the Implementation of the M.S. program in Marine and Environmental Biology. The next progress report shall be due October 1, 2004.

In October of 2005, a two-year report on program activities was summarized and presented to the Board of Regents. The action follows.

The Board of Regents receives the October 2005 Progress Report from Nicholls State University Relative to Implementation of the Master of Science program in Marine and Environmental Biology. By October 1, 2006, the University shall submit to the Commissioner of Higher Education a subsequent progress report addressing continued concerns as expressed in the staff summary.

STAFF ANALYSIS

Issues to be addressed in the AY 2005-06 report include the need for reduction in faculty teaching load and the need for ongoing support of the program. Each specific issue, shown in italics, is followed by the institution's response.

1. Need for Reduction in Teaching Loads

a. At least one additional FTE tenure track faculty is needed

The University administration provided the program with an additional tenure track faculty position, which was filled in August, 2006.

b. The ERC recommended no more than six contact hours for at least four graduate faculty

In Spring 2007, the Department will reduce the teaching load of three graduate faculty that are not already at six contact hours. This will be accomplished by more efficient use of the graduate teaching assistants (GTAs) in freshman introductory laboratory courses. Teaching loads of three graduate faculty will be reduced on a rotating basis until the Department of Biological Sciences is permitted to hire another Master's credentialed faculty and given three additional GTAs.

c. The ERC recommended three master's level instructors to handle some of the undergraduate courses and part-time lecturers (PTLs) to help with graduate teaching.

The Department now has two instructors; a request for a third will be submitted for the upcoming fiscal year budget. One PTL, a local veterinarian, assists with service courses.

d. Additional graduate teaching assistants are needed. While twelve were approved for MEB, only eight have been funded.

The institution provided one additional GTA for Fall 2006, bringing the total number of GTAs assigned to MEB to nine.

2. Need for Ongoing Support for the Program

a. New faculty must be provided with adequate laboratory space and equipment for research.

The Department's new tenure-track hire was provided with both laboratory space and a start-up package for equipment.

b. Additional space was need for graduate students

Nicholls reports that some additional space has been recovered and converted into offices for graduate students. Previous plus newly acquired space is presently satisfying the need for MEB graduate student offices.

- c. **Graduate assistantships are underfunded....assistantships should be at least \$10,000 plus tuition waiver.**

The University gave the department the option of funding the existing GTAs, which numbered eight at a slightly higher level of \$ 9,000/year plus tuition waiver, or hiring one additional GTA for the AY 2006-07. Faculty in Biological Sciences chose to hire an additional GTA, as increased number of GTAs is considered a higher priority. Nicholls is very well aware that assistantship stipends are low and may not be competitive enough to attract students from a national pool. However, Biological Sciences faculty are successful in obtaining federal, state and private research grants and contracts to support eight of the nine GTAs on summer research funds. These funds bring GTA salaries to an equivalent of \$12,000 or higher per year plus tuition waiver.

- d. **Additional clerical assistance is needed for the MEB program.**

An additional secretary was provided in summer 2006; the Department now has two secretaries.

3. Additional relevant information

In its report, Nicholls included an update on the academic achievements of the MEB students and faculty which indicates a very high level of productivity in the last twelve months. Fifty-six research posters or oral presentations have represented the program at local, state, national and international conferences. Eighteen papers have been submitted or accepted for publication in referred journals. Twenty five grants or contracts have been awarded to faculty for \$ 860,879, which results in significant research and instructional equipment, supplies and travel opportunities for students. Since the MEB program's inception, eight graduate student research presentations have received awards at conferences.

In Summer 2006, the institution purchased \$74,000 of research equipment which ranged from a real-time polymerase chain reaction instrument to a boat and motor. Through the efforts of faculty in biological sciences, Nicholls was able to sign a ten-year Memorandum of Understanding with the federal Natural Resources Conservation Service (NRCS) for wetland plants production and research efforts. NRCS estimates \$52,000 of "in kind" services will be provided to the University and its students in the MEB program.

Despite its recent implementation and some changes in faculty, the MEB program has already or will shortly produce produced an impressive number of graduates. Data provided on graduate placement indicates that all have been employed in the field or have been admitted to graduate or professional school.

<u>AY</u>	<u># Graduates</u>
2003-04	2
2004-05	1
2005-06	9
2006-07	11 (anticipated)
2007-08	11 (anticipated)

STAFF SUMMARY

MEB at Nicholls continues to be a very productive program. The institution has responded appropriately to many of the staff's previous concerns with significantly increased support, which is necessary to maintain a viable science program. Issues which remain include:

1. Need for reduction to six hours of instruction /semester for four graduate faculty.
2. Need for one additional instructor.
3. Need for four GTAs at \$10,000/year plus tuition waiver (one exists at \$8,000).

The MEB program's productivity is laudable and the University's response to the need for additional support of a unique program is commendable. The Department and institution are encouraged to explore additional avenues for funding assistantships and alternate arrangements for course instructors, including better utilization of LUMCON connections. The staff believes that there are probably additional opportunities for research assistant support from ongoing and/or new research programs at LUMCON. While the University has indicated its intent to resolve the issues cited above in the near future, an additional report addressing the remaining concerns is necessary.

STAFF RECOMMENDATION

The staff recommends that the Academic and Student Affairs Committee receive the AY 2005-06 AY Progress Report from Nicholls State University Relative to the Implementation of the Master of Science program in Marine and Environmental Biology. By August 1, 2007, the University shall submit to the Associate Commissioner for academic Affairs an additional progress report addressing continuing concerns as expressed in the staff summary.

AGENDA ITEM V A 2

PROGRESS REPORT ON CONDITIONALLY APPROVED PROGRAM

NICHOLLS STATE UNIVERSITY

M.S. IN COMMUNITY & TECHNICAL COLLEGE MATHEMATICS

AGENDA ITEM V A 2

PROGRESS REPORT ON CONDITIONALLY APPROVED PROGRAM

NICHOLLS STATE UNIVERSITY

M.S. IN COMMUNITY & TECHNICAL COLLEGE MATHEMATICS

BACKGROUND INFORMATION

At its meeting of August 28, 2003, the Board of Regents took the following action:

Conditional approval is granted for the proposed M.S. program in Community/Technical College Mathematics (CIP Code 27.0199) at Nicholls State University. The implementation date of the program shall be decided after receipt of a progress report to be due March 1, 2004, documenting efforts of the University to address outstanding concerns. Most critically, one additional new Ph.D. in Mathematics faculty must be hired prior to program implementation. Additional progress reports may be required thereafter. Further, the M.S. program in Applied Mathematics (CIP Code 27.0301) at Nicholls State University is hereby terminated, effective Fall 2004.

Subsequently, in May, 2004, the Regents approved the following:

The Board of Regents receives the AY 2003-2004 Progress Report from Nicholls State University Relative to Implementation of the Bachelor of Science Program in Geomatics. A second progress report addressing continuing faculty needs and resources shall be due by June 1, 2005.

On August 26, 2004, the University informed the Academic Affairs staff of the Board of Regents that an additional Ph. D. credentialed faculty had been hired as an Assistant Professor of Mathematics; Nicholls State University (NSU) received administrative approval to implement the M.S. program in Community and Technical College Mathematics (MCCM), beginning Fall 2004.

In October, 2005, the Regents acted as indicated below:

The Board of Regents receives the AY 2004-2005 Progress Report from Nicholls State University Relative to Implementation of the M.S. in Community and Technical College Mathematics. By October 1, 2006, the University shall submit to the Commissioner of Higher Education a subsequent progress report addressing continuing concerns as expressed in the staff summary.

STAFF ANALYSIS

In its most recent progress report, the University addressed remaining staff concerns:

1. The need for faculty release time for developing courses, especially for on-line or other distance learning offerings

Nicholls indicates that a three-hour reduction in teaching load has been granted to graduate faculty who are developing courses for online or other distance delivery methods. Two faculty utilized this option in 2006. Current offerings and enrollment figures are indicated below.

Spring 2006

MATH 509 - *Logic and Foundations of Mathematics for Teachers* (online)

Enrollment: 5

MATH 573 - *Topics in the History of Mathematics* (online) Enrollment 7

MATH 523 - *Geometric & Algebraic Structures* (New course; partially online)

Enrollment: 7

Fall 2006

MATH 510 - *Number-Theoretic & Discrete Structures* (New, online)

Enrollment: 6.

MATH 590 - *Topics in Advanced Mathematics: The Theory of Equations*

(Elective course, offered one evening/week) Enrollment: 6.

2. The adequacy of graduate student support

Nine students are enrolled in the MCCM or pre-program for AY 2006-07. Six assistantships have been awarded for the present semester. Four assistantships were awarded at \$10,000/year; two are funded at \$6,000 per year for pre-MCCM students who are currently enrolled in MATH 500 - *Preparation for Teaching Developmental Mathematics* or other prerequisite courses. The three remaining students were not interested in assistantships due to employment elsewhere.

3. The need for adequate travel funds to support faculty development and recruiting of graduate students

In its report, Nicholls stated that departmental travel budgets were reduced university-wide. However, to the extent possible, graduate faculty in mathematics presenting papers would receive assistance to attend meetings in support of faculty development. During the last academic year, faculty gave presentations on professional development for secondary school teachers as well as on the MCCM program at regional conferences. The Department expects faculty involvement with these organizations to continue into 2007. While no out of state travel

occurred from March, 2005 until submission of the report, a recent hire is scheduled to attend the 26th Southeastern Atlantic Regional Conference in North Carolina at the end of this month.

4. Additional relevant information, which follows, was provided by Nicholls.

a. Faculty

The institution reports that a new assistant professor was hired for AY 2006-07. He has experience with several software programs useful in teaching mathematics as well as software development. While the uniquely qualified individual fills a vacancy which resulted from a retirement and subsequent changes, he can be expected to make significant contributions to the growth and development of the MCCM program. He should be a considerable asset to the teaching program as well as the development of online/distance offerings.

b. Graduates/Recruitment Efforts

Two graduates of the MCCM program are anticipated for May, 2007. Recruitment efforts include:

Development of a program web page
Communication with superintendents and principals of secondary school systems
Communication with personnel at Louisiana's community colleges, emphasizing faculty development
Publication of new graduate brochures
Inclusion of the program in the Academic Common Market

c. Equipment

Nicholls reports that computers and software currently available are adequate for quality course offerings; faculty are continually looking for ways to enhance computer resources, primarily through internal and external grants. Additional sources of funding for upgrades are always being sought.

STAFF SUMMARY

The Master of Science program in Community and Technical College Mathematics at Nicholls State University is developing slowly, but appropriately.

1. Five full-time graduate faculty are involved in the program. Additionally, the Dean of the College of Arts & Sciences, who is a mathematician, is scheduled to teach a graduate course in Spring 2007. While additional faculty may be needed as the MCCM program grows, a core of well-trained faculty is present.

2. Faculty continue to develop courses that are offered via distance learning methods. Three courses have been offered online; a fourth was offered partially online, while another meets once per week in the evening, which facilitates enrollment for students who work and/or must travel to Thibodaux for the class. The staff interprets this to be appropriate progress toward establishing a program that will eventually be available to many students throughout the state.
3. Funding for faculty travel is quite limited. Additional travel was recommended by the External Review Committee (ERC) for attracting quality graduate students into the program as well as for faculty development. Exploration of alternative [funding sources must be explored](#).
4. Eight students have been awarded financial assistance, but assistantships designated for the program remain available. Therefore, higher levels of support and additional, more innovative methods of recruiting qualified students appear to be necessary.
5. While available computers and software are adequate for current needs, the staff advises that frequent updating is essential because of the nature and delivery methods of the program.

Concerns of the ERC have been satisfied with the exceptions of the need for twelve assistantships and adequate travel funds for faculty. However, given current minimal enrollments, the staff strongly encourages a more aggressive student recruitment effort. If enrollment remains at the current level, then low degree productivity will inevitably result, placing the program in jeopardy during a low-completer review. These concerns should be addressed in a subsequent progress report.

STAFF RECOMMENDATION

The staff recommends that the Academic and Student Affairs Committee receive the AY 2005-06 Progress Report from Nicholls State University Relative to Implementation of the M.S. in Community and Technical College Mathematics. By August 1, 2007, the University shall submit to the Associate Commissioner for Academic Affairs an additional progress report addressing continuing concerns as expressed in the staff summary.

AGENDA ITEM V A 3

PROGRESS REPORT ON CONDITIONALLY APPROVED PROGRAM

NICHOLLS STATE UNIVERSITY

B.S. IN GEOMATICS

AGENDA ITEM V A 3

PROGRESS REPORT ON CONDITIONALLY APPROVED PROGRAM

NICHOLLS STATE UNIVERSITY

B.S. IN GEOMATICS

BACKGROUND INFORMATION

At its meeting in March 2003, the Board of Regents acted as follows:

Conditional approval is granted for the proposed B. S. program in Geomatics (CIP Code 15.1102) at Nicholls State University, effective Fall, 2003. By April 1, 2004, the University shall submit to the Commissioner of Higher Education a progress report addressing all concerns identified in the staff summary.

In May of 2004, the Regents decided:

The Board of Regents receives the AY 2003-2004 Progress Report from Nicholls State University Relative to Implementation of the Bachelor of Science Program in Geomatics. A second progress report addressing continuing faculty needs and resources shall be due by June 1, 2005.

Subsequently, on October 27, 2005, the Regents acted as follows:

The Board of Regents receives AY 2004-2005 Report from Nicholls State University Relative to the Implementation of the Bachelor of Science Program in Geomatics. By October 1, 2006, the University shall submit to the Commissioner of Higher Education a subsequent progress report addressing continuing concerns as expressed in the staff summary.

STAFF ANALYSIS

Concerns to be addressed in the current AY 2005-06 report include the adequacy of faculty number for offering the full complement of geomatics courses and sufficiency of funding for equipment acquisition.

1. Faculty

Nicholls reports that the efforts to hire a third geomatics faculty at the instructor/assistant professor level were hampered by storm impact on the State and institution. As only two applications were received from individuals with appropriate credentials during AY 2005-06, the search remains in progress and has been extended until January 2007. Additional applications have been received and are under review. The position is

currently advertised in the American Congress for Surveying and Mapping Bulletin and on several appropriate websites.

2. Funding for Equipment Acquisition

Nicholls reports that the University purchased approximately \$32,000 of equipment and \$19,125 of surveying and mapping computer software for the Geomatics program during the past year. The National Geologic Survey/National Oceanographic and Atmospheric Administration will place a GPS CORS Cooperative Station on the Nicholls campus. This facility is valued at \$36,950 and includes on site training sessions. The National Electronics, Inc. of Lafayette and Trimble Instruments partnership has extended the loan of GPS equipment, valued at \$155,000, to NSU's program for another year. This loan arrangement also assures that only the most current equipment will be available for student training. The Louisiana Society of Professional Surveyors (LSPS) has pledged \$30,000 which will be to which is committed an additional \$20,000 of institutional funds for a matching funds grant initiative to develop a surveying and mapping computer center. Apache, Inc. has donated \$5,000 to the program for use at its discretion.

3. Additional Relevant Information

The report stated that funds for nine scholarships have been provided by industries as shown below:

J Ray McDermott: four \$1,000 scholarships

LSPS: \$1,000 scholarship

C&C Technologies and Surveying Services of Lafayette: four \$1,000 scholarships

LPSP Board of Directors met on the Nicholls campus recently; its support for the geomatics program is ongoing and varied. LSPS has committed to a media campaign to advertise the program as well as for long term fundraising to support the geomatics program.

STAFF SUMMARY

While unforeseeable circumstances impeded the search for a third full-time geomatics faculty, the unfilled position remains a concern. Information provided for the previous report, indicated that another FT faculty plus one or two adjuncts were needed for the program to offer the full complement of geomatics courses in a timely manner so that students could complete the curriculum in four years. The program begins its third year; one graduate is anticipated in December 2006 and three are expected to graduate in Spring 2007. If the FT position is not filled by next semester, The University plans to use four adjunct faculty to offer necessary courses.

Before the application process for mandatory ABET accreditation commences in Fall 2008, the presence of adequate faculty is essential. A subsequent progress report addressing the need for additional faculty is necessary.

Funding for equipment needed for training students is adequate. The program has shown initiative in seeking funding from alternate sources and appears to enjoy good support from industry. The establishment of numerous scholarships is beneficial to students as well as industrial partners.

STAFF RECOMMENDATION

The staff recommends that the Academic and Student Affairs Committee accept the AY 2005-06 Progress Report from Nicholls State University Relative to the Implementation of the Bachelor of Science program in Geomatics. By August 1, 2007, the University shall submit to the Commissioner of Higher Education an additional progress report addressing continuing concerns as expressed in the staff summary.